

Remarks/Arguments:

Claims 1-30 are pending and rejected in the application. Claim 28 has been amended. No new matter has been added.

On page 2, the Official Action objects to claims 28-30 has being directed to non-statutory subject matter. Applicants have therefore amended independent claim 28 to recite that the registration is deleted and stored in "*a memory device.*" Support for the memory device is at least found on page 34, line 10 to page 36, line 20 of the specification and furthermore shown in Fig. 10. No new matter has been added.

On page 3, the Official Action rejects claims 1-30 under 35 U.S.C. §103(a) as being unpatentable over Gwon (U.S. Publication 2003/0016655) in view of Warriar (U.S. Patent 6,707,809) and Leung (U.S. Patent 6,195,705). It is respectfully submitted, however, that the claims are patentable over the art of record for at least the reasons set forth below.

Applicants' invention, as recited by claim 1, includes features which are neither disclosed nor suggested by the art of record, namely:

a measuring section for measuring at least one of a hop number and communication delay time to a home agent ...

a home agent selecting section for changing, when a measurement value to the home agent to which the mobile node belongs becomes equal to greater than a first predetermined value, from the belonging home agent to a new home agent, the belonging home agent and the new home agent being associated to a same home network of the mobile node ... (Emphasis Added)

Claim 1 relates to the changing of a home agent (HA). Specifically a HA is a router on the home network of a mobile node (MN). In one example, a MN belongs to a belonging HA. As the MN moves through the network, a measuring section determines the communication delay time between the MN and belonging HA. If the communication delay time exceeds a predetermined value, the MN switches from the belonging HA to a new HA (the new HA having a smaller communication delay time to the MN). This feature is at least supported on pages 15-17 of the originally filed specification and furthermore shown in Figs. 1 and 2. No new matter has been added.

On page 4, the Official Action states that Gwon teaches Applicants' measurement section. Applicants, however, respectfully disagree. In paragraph [0055], packet latency with respect to "*handoff*" is calculated. Specifically, the packet latency is caused when the MN switches foreign agents (FAs). Thus, Gwon is computing the latency due to the handoff procedure (Gwon does not measure the hop number or communication delay time from an MN to an HA). Gwon is focused on reducing the handoff latency (not communication latency) caused when FAs are switched.

On page 5, the Official Action states that Warriar discloses switching from a belonging HA to a new HA. Applicants, however, respectfully disagree. In Col. 5, line 66-Col. 6, line 3, Warriar suggests a tunneling function wherein the HA forwards packets from the server to the FA ("*home agent 18 performs tunneling functions for the mobile node ... it forwards packets of data from the WAP server and source computer 12 to the foreign agent 16 for transmission over the PPP connection to the mobile node 10*"). Thus, even though Fig. 2 of Warriar shows multiple home agents (18, 18A and 18B), Warriar does not disclose or suggest switching from a belonging HA to a new HA.

On page 6, the Examiner combines the teachings of Leung with Gwon and Warriar. Specifically, Fig. 2 of Leung shows a plurality of home agents (HA1, HA2 and HA3) which are serving a home network of MNs 6 and 27. In at least Col. 7, Leung discloses an example where the MN is being serviced by HA1. Specifically, if HA1 is no longer able to operate (HA1 fails) then standby HA2 takes over operations. Thus, Leung teaches switching HAs based upon a failure of one of the HAs. Leung's failure based HA switching teaches away from switching HAs based on communication delay (as recited in Applicants' claim 1). Thus, Leung does not make up for the deficiencies of Gwon and Warriar.

Furthermore, it should be noted that handover latency between FAs can be reduced by predicting the timing of handover as disclosed in Gwon. Because Gwon is concerned with handoff delay (not communication delay), Gwon would not switch HAs (switching HAs reduces communication latency but does not reduce handover latency).

Applicants' claim 1 is different then the art of record, because the mobile node is able to switch HAs when the communication delay time exceeds a predetermined value ("*a measurement section for measuring at least one of a hop number and communication*

delay time to a home agent ... a home agent selecting section for changing, when a measurement value to the home agent to which the mobile node belongs becomes equal to greater than a first predetermined value, from the belonging home agent to a new home agent, the belonging home agent and the new home agent being associated to a same home network of the mobile node ...").

As shown in Applicants' Figs. 1 and 2, HA11 and HA14 are associated to the home network 18 of MN10. While located in area 13, HA11 is the belonging home agent for MN 10. When MN moves from location 13 to location 16 in the network, however, it switches from HA11 which was the belonging home agent to HA14 which is the new home agent. This switching procedure is performed when the measurement of communication delay from the MN to the HA exceeds a predetermined value. This feature is at least supported on page 16 of the specification ("*home agent 11 ... measures a hop number ... to the mobile node 10 and measures a communication delay time. When the measured hop number value or communication delay time is equal to or greater then a predetermined threshold, the home agent 11 sends the mobile node 10 a binding acknowledgment message instructing for a change of home agent*"). Thus, the mobile node recited in Applicants' claim 1 switches home agents when the communication delay time (number of hops) between the mobile node and home agent exceed a predetermined threshold. Accordingly, for the reasons set forth above, claim 1 is patentable over the art of record.

Claims 9, 12, 15, 16, 19 and 28 have similar features to claim 1. Thus, these claims are also patentable over the art of record for at least the reasons set forth above with respect to claim 1.

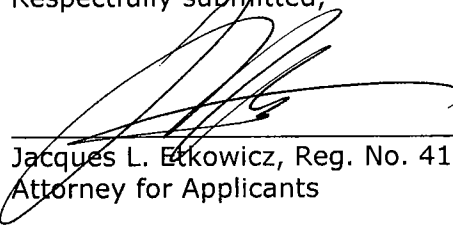
Dependent claims 2-8, 10-11, 13-14, 17-18, 20-27 and 29-30 include all of the features of the claims from which they depend. Thus, these claims are also patentable over the art of record for at least the reasons set forth above with respect to claim 1.

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In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J. Etkowicz', is written over a horizontal line.

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